3GPP TSG-RAN WG4 Meeting #106 R4-2302842

Athens, Greece, 27 February– 3 March, 2023

**Agenda item:** 10.7.2

**Source:** Moderator (Huawei, HiSilicon)

**Title:** Topic summary for [106][149] LTE\_intra\_CA\_MPR\_35MHz\_gap

**Document for:** Information

# Introduction

Email discussion for contributions submitted under agenda item 10.7, which is about the MPR for LTE Intra-band CA with CC gap larger than 35 MHz.

List of candidate target of email discussion for 1st round and 2nd round

* 1st round: Discussion and potential approval of the work plan, and the MPR values for PC3 LTE intra-band NC CA with frequency gap higher than 35MHz.
* 2nd round: Approval of the work plan, and the MPR values for PC3 LTE intra-band NC CA with frequency gap higher than 35MHz.

It is appreciated that the delegates for this topic put their contact information in the table below.

Contact information

|  |  |  |
| --- | --- | --- |
| **Company** | **Name** | **Email address** |
|  |  |  |

Note:

1. Please add your contact information in above table once you make comments on this email thread.
2. If multiple delegates from the same company make comments on single email thread, please add you name as suffix after company name when make comments i.e. Company A (XX, XX)

# Topic #1: Rapporteur input (WID/TR/CR)

## Companies’ contributions summary

|  |  |  |
| --- | --- | --- |
| **T-doc number** | **Company** | **Proposals / Observations** |
| R4-2302500 | Huawei, HiSilicon | Proposal 1: Approve the work plan |

## Open issues summary

### Sub-topic 1-1

**Issue 1-1: Work Plan**

* Proposals
  + Option 1: Approve the work plan.
  + Option 2: Revise the work plan.
* Recommended WF
* TBD

## Companies views’ collection for 1st round

### Open issues

Sub topic 1-1

|  |  |
| --- | --- |
| **Company** | **Comments** |
| XXX |  |

Sub topic 1-2

|  |  |
| --- | --- |
| **Company** | **Comments** |
| XXX |  |

### CRs/TPs comments collection

## Summary for 1st round

### Open issues

*Moderator tries to summarize discussion status for 1st round, list all the identified open issues and tentative agreements or candidate options and suggestion for 2nd round i.e. WF assignment.*

|  |  |
| --- | --- |
|  | **Status summary** |
| **Sub-topic 1-1** | *The work plan was approved* |

### CRs/TPs

*Moderator tries to summarize discussion status for 1st round and provides recommendation on CRs/TPs Status update*

*Note: The tdoc decisions shall be provided in Section 3 and this table is optional in case moderators would like to provide additional information.*

|  |  |
| --- | --- |
| **CR/TP number** | **CRs/TPs Status update recommendation** |
| XXX | *Based on 1st round of comments collection, moderator can recommend the next steps such as “agreeable”, “to be revised”* |

## Discussion on 2nd round (if applicable)

# Topic #2: UE RF requirements

## Companies’ contributions summary

|  |  |  |
| --- | --- | --- |
| **T-doc number** | **Company** | **Proposals / Observations** |
| R4-2302495 | Huawei, HiSilicon | **Proposal 1: For a PC3 UE with LTE UL intra-band NC CA use the same MPR values as NR, as specified in Table 1.**  Table 1 MPR values for PC3 UEs with LTE UL intra-band NC CA   |  |  | | --- | --- | | MPR to meet -13dBm/MHz:  MPR = 9 ; 0 ≤ B < 0.54  8.5 ; 0.54 ≤ B < 1.08  8 ; 1.08 ≤ B < 2.16  7 ; 2.16 ≤ B < 3.24  6 ; 3.24 ≤ B < 5.4  5 ; 5.4 ≤ B | MPR to meet -30dBm/MHz:  MPR = 15; 0 ≤ B < 1.08  14; 1.08 ≤ B < 2.16  13; 2.16 ≤ B < 3.24  12; 3.24 ≤ B < 5  11; 5 ≤ B < 10  10; 10 ≤ B < 16.4  9; 16.4 ≤ B < 21.8  8; 21.8 ≤ B | | B=(LCRB\_alloc, 1\* 12\* SCS1 + LCRB\_alloc,2 \* 12 \* SCS2)/1,000,000  Note 1: Dual-PA architecture is supported | |   **Proposal 2: If Note 1 in Table 1 is not sufficient, a UE capability (such as *dualPA-Architecture* in NR) needs to be introduced to take into account the new UE architecture with 2 PAs and 2 LOs.** |

## Open issues summary

### Sub-topic 2-1

**Issue 2-1: MPR values when Wgap >35 MHz**

* Proposals
  + Option 1: Approve proposal 1.
  + Option 2: Revise proposal 1.
  + Option 3: Postpone proposal 1.
* Recommended WF
  + TBD

### Sub-topic 2-2

**Issue 2-2: Add a UE capability similar to *dualPA-Architecture* in NR**

* Proposal 1
  + Option 1: Approve proposal 1.
  + Option 2: Revise proposal 1.
  + Option 3: Postpone proposal 1.
* Recommended WF
  + TBD

## Companies views’ collection for 1st round

### Open issues

Sub topic 2-1

|  |  |
| --- | --- |
| **Company** | **Comments** |
| XXX |  |

Sub topic 2-2

|  |  |
| --- | --- |
| **Company** | **Comments** |
| XXX | Proposal 1  Proposal 2 |

### CRs/TPs comments collection

## Summary for 1st round

### Open issues

*Moderator tries to summarize discussion status for 1st round, list all the identified open issues and tentative agreements or candidate options and suggestion for 2nd round i.e. WF assignment.*

|  |  |
| --- | --- |
|  | **Status summary** |
| **Sub-topic 2-1** | MPR values for PC3 UEs with LTE UL intra-band NC CA were agreed |
| **Sub-topic 2-2** | Option 2, Instead of a UE capability, add a note to the title of the table as “dual Tx” |

### CRs/TPs

*Moderator tries to summarize discussion status for 1st round and provided recommendation on CRs/TPs Status update suggestion*

|  |  |
| --- | --- |
| **CR/TP number** | **CRs/TPs Status update recommendation** |
| R4-2303496 | CR on MPR for LTE Intra-band CA with CC gap larger than 35 MHz |

## Discussion on 2nd round (if applicable)

*Moderator can provide summary of 2nd round here. Note that recommended decisions on tdocs should be provided in the section titled ”Recommendations for Tdocs”.*

# Recommendations for Tdocs

## 1st round

**New tdocs**

|  |  |  |  |
| --- | --- | --- | --- |
| **New Tdoc number** | **Title** | **Source** | **Comments** |
| R4-2303496 | CR on MPR for LTE Intra-band CA with CC gap larger than 35 MHz | Huawei Technologies France | Agreed |
|  |  |  |  |
|  |  |  |  |

**Existing tdocs**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Tdoc number** | **Revised to** | **Title** | **Source** | **Recommendation** | **Comments** |
| R4-2302495 |  | MPR Evaluation for PC3 UEs LTE Intra-Band NC CA with Frequency Separation Higher than 35MHz | Huawei Technologies France | Noted |  |
| R4-2302500 |  | Work Plan for MPR Evaluation for PC3 UEs LTE Intra-Band NC CA with Frequency Separation Higher Than 35MHz | Huawei Technologies France | Approved |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

Notes:

1. Please include the summary of recommendations for all tdocs across all sub-topics incl. existing and new tdocs.
2. For the Recommendation column please include one of the following:
   1. CRs/TPs: Agreeable, Revised, Merged, Postponed, Not Pursued
   2. Other documents: Agreeable, Revised, Noted
3. For new LS documents, please include information on To/Cc WGs in the comments column
4. Do not include hyper-links in the documents

## 2nd round

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Tdoc number** | **Revised to** | **Title** | **Source** | **Recommendation** | **Comments** |
| R4-23xxxxx |  | CR on … | XXX | Agreeable, Revised, Merged, Postponed, Not Pursued |  |
| R4-23xxxxx |  | WF on … | YYY | Agreeable, Revised, Noted |  |
| R4-23xxxxx |  | LS on … | ZZZ | Agreeable, Revised, Noted |  |
|  |  |  |  |  |  |

Notes:

1. Please include the summary of recommendations for all tdocs across all sub-topics.
2. For the Recommendation column please include one of the following:
   1. CRs/TPs: Agreeable, Revised, Merged, Postponed, Not Pursued
   2. Other documents: Agreeable, Revised, Noted
3. Do not include hyper-links in the documents